



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue  
Seattle, Washington 98101

November 29, 1994

Reply to  
Attn of: HW-104

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John S. Banchemo, Jr., President  
Northwest Enviroservice, Inc.  
1700 Airport Way South  
Seattle, WA 98134

Re: Northwest Enviroservice, Inc. Closure Plan

Dear Mr. Banchemo:

The "Closure Plan, Closure of Freuhauf Pit, Large Pit, Sumps No. 2 and 4," submitted by Northwest Enviroservice, Inc. (NWES) in July 1994 for closure of three hazardous waste tanks and one hazardous waste surface impoundment (hereinafter "Closure Plan") has been given public notice. Pursuant to 40 CFR §265.112(d)(4), incorporated by reference by WAC 173-303-400(3), the Closure Plan is hereby disapproved. A detailed written statement of reasons for the disapproval are enclosed as Attachment A (EPA comments) and Attachment B (Washington State Department of Ecology comments). NWES has 30 days from receipt of this letter to resubmit a modified closure plan for approval or modification.

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In the General Comments portion of Attachment B, item #1 refers to Agency procedures, and is not a comment which NWES must address. Additionally, the second paragraph of item #2 refers to the possibility of incorporating the groundwater contamination remediation into the Corrective Action portion of an operating or post-closure permit at the facility.

I look forward to receiving your revised closure plan and to completing the closure of these units. Please contact me at (206) 553-1061 should you have questions in this matter.

Sincerely,

Kevin Schanilec  
RCRA Compliance Section

Enclosures

cc: Sally Safioles, Ecology NWRO

USEPA RCRA



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## ATTACHMENT A

1. The Closure Plan and SAP have not identified other means of transport from the four units, such as surface water run-off and groundwater contamination. For instance, it is possible, especially in the case of the Large Pit, that groundwater will be encountered during sampling operations. There is no mention of potential groundwater sampling in either the Closure Plan or SAP. These transport mechanisms must be addressed and investigated in the revised Closure Plan and SAP.
2. All documents which NWES cites in support of the Closure Plan, such as integrity tests of the regulated units, should be appended.
3. It is suggested that the Closure Plan and Sampling and Analysis Plan (SAP) be written in document control format, with the revision number and date of page revision on each page of the document to facilitate future changes.

Additionally, it is suggested that the revised closure plan be accompanied by a computer diskette with the file on it in order to facilitate any modifications.

4. The Closure Plan and SAP do not provide enough information on QA Management for the project, including who is responsible for the quality of sampling and analysis data at the site, who the NWES Project Manager and QA Manager is, and who will perform the sampling and analysis of samples.
5. Page 1, Section 1.0, Introduction. It should be made clear in the introduction, and in sections 2.2 through 2.5, that, of the four units covered in the Closure Plan, three are considered under RCRA to be tanks and one a surface impoundment. The current wording is confusing, in that the surface impoundment is referenced as a tank, and two of the tanks are referred to as sumps. The regulatory definitions should be adhered to throughout this document.

While NWES may disagree with the regulatory description of these units, the closure plan must stand alone. Therefore, the closure plan must include how each unit will be closed, either as a tank or surface impoundment. NWES may include a statement that the units have been alleged in the Complaint to be HWMUs, that this closure plan neither admits or denies these allegations, but that the units will nevertheless undergo RCRA closure pursuant to the requirements of 40 CFR §265 Subpart G, J, and K, incorporated by reference at WAC 173-303-400(3). Preparing the closure plan with these requirements "in mind" is not acceptable: a regulatory standard must be used.



6. Page 1, Section 1.1, Closure Activities. The fourth bullet item should be amended to more correctly reflect the fact that soil sampling will be conducted to "determine whether releases from the units occurred," as well as to "verify that clean closure occurred."
7. Page 3, Section 1.1 (continued), second paragraph. The third sentence states that "these units are tanks," referring to all four units. This should be corrected to indicate that one unit is a surface impoundment.
8. Pages 4-9, Sections 2.2-2.5: The requirements to which these units are being closed should be identified (viz., 40 CFR Part 265 Subparts G and J/K). Additionally, the Sump descriptions should include the date the units were put into service.
9. Page 9, Section 2.6, Potential Historical Contaminants. Indicator parameters are insufficient to determine whether clean closure has been achieved. Because of the wide variety of wastes managed by NWES in these units, as documented in records received from NWES' operating record, all of the hazardous constituents in 40 CFR Part 261 Appendix VIII (Appendix VIII) which reasonably could be construed to have been managed in the units must be analyzed for in order to determine whether clean closure has been achieved. A subset of Appendix VIII may be sufficient for analysis if it can be determined reliably what hazardous waste constituents were received into each unit. Exclusion of any constituents would require a thorough review of NWES' operating record.
10. Page 10, Section 4.2. The Closure Plan proposes to collect only one sample beneath each unit. The collection of one core sample may not be representative of the soil beneath each unit. Statistically, a single soil sample beneath the center of a unit does not show that the units have not contaminated the groundwater and surface water and soils surrounding the units. Additional soil samples and groundwater samples must be taken to document lack of environmental contamination. Sample locations should be selected for each unit based on the highest likelihood of the location of a release, such as low points, cracks, seams, stains, etc. In the absence of such factors, sample locations should be determined on a random basis.

11. Page 10, Section 4.2, Specific Performance Standards. Rinsate samples are not acceptable for determining whether decontamination has occurred, in that:
- the degree of dilution is unknown, and therefore the results are not comparable with any standard;
  - water is not an appropriate solvent for most constituents associated with petroleum.

A wipe test similar to that prescribed under TSCA for PCBs may be appropriate.

12. Page 11, Table 4-1. Closure performance standards for rinsate (assumed to correspond to "water" on the table) are not appropriate, as described in comment #11 above.
13. Page 11, Table 4.1. See comment #9 above regarding selection of analytes of concern.
14. Page 11, Table 4.1. It is not appropriate to use clean-up standards which were developed for the Superfund Record of Decision for Harbor Island, as that document represents the results of an intensive, site-specific risk and exposure analysis which has not been conducted for NWES. No information is presented in the Closure Plan to eliminate the consideration of ground water which flows beneath NWES as a potential source of drinking water.

Also, Method C of MTCA is not appropriate to use to derive clean-up standards for NWES (See WAC 173 303-610(2)(b)(i)). Method C does not take into consideration the protection of ground water, and assumes there will be institutional controls and subsequent monitoring. If NWES wishes to use MTCA standards for proposing clean-up values, Methods A or B would be acceptable. Under any circumstances, NWES must justify the proposal of any exposure assumptions which are less protective than residential.

15. Page 12, Section 5.3, Decontamination of Units. If "cracks or openings" are found in the bottom surfaces of the units, the soils immediately beneath should be sampled and analyzed for the presence of hazardous constituents.
16. Page 14, Section 5.4, Performance Standard Verification. If EPA-approved clean-closure levels for a given unit are not met, NWES must submit a post-closure plan for that unit (see Section 7.0, page 18).



17. Page 14, Section 5.4. The measurement of rinsate samples does not prove that surfaces are properly decontaminated. PCB-type wipe tests should also be taken and measured for Appendix VIII constituents in order to document the extent of decontamination.
18. Page 15, Section 5.4. The table on this page should be numbered, and address all of the hazardous constituents in 40 CFR Part 261 Appendix VIII (Appendix VIII) which reasonably could be construed to have been managed in the units must be analyzed for in order to determine whether clean closure has been achieved.

As such, the table should include SW-846 methods to measure Appendix VIII constituents, such as methods 8270A and 8080A. TCLP extraction using method 1311 should be removed from the table. Instead, inorganic methods to measure inorganics directly in soil, groundwater, surface water, and rinsate water should be added.

In addition, analytical measurement methods for Appendix VIII organics should include special cleanup procedures such as the use of GPC and column chromatography to remove oily matrix interferences before SV and pesticide/PCBs are measured in soil extracts.

19. Page 15, Section 5.5, Quality Assurance. There is no reference to the following items in the attached sampling and analysis plan, as indicated in this section: QA objectives; data reduction, validation, and reporting; data precision, accuracy and completeness; and corrective actions.
20. Page 16. The statement that Washington State certified labs will be used does not meet RCRA requirements. Washington State labs are certified to measure a limited list of target compounds in NPDES effluent, not in soil samples. NWES must document and approve the following documents from each lab measuring samples from the facility:
  1. Laboratory QA Plan
  2. SOPs for each measurement procedure and for sample and document control in the lab.
  3. Results of recent (within 1 year) Technical Systems Audits for the procedures that the laboratory will perform for this SAP.
  4. Results for WS, WP, and other PE samples for the past five years.

A copy of the Lab QA Plan and SOPs should be submitted to EPA for each laboratory which is supporting the measurement of samples from the site. The Lab QA Plan should be based upon the following EPA document: EPA Region 10 Guidance on Preparation of Laboratory Quality Assurance Plans, EPA 910/9-92-032.

The following elements should be addressed in a Lab QA Plan:

1. Title Page
2. Table of Contents
3. Quality Assurance Policy Statement
4. Ethics Policy on Fraud, Waste, and Abuse
5. Quality Assurance Management
  - 5.1 Organization
  - 5.2 Assignment of QC and QA responsibilities
  - 5.3 Reporting Relationships
  - 5.4 QA Document Control Procedures
  - 5.5 QA Program Assessment Procedures
6. Administrative Organization
7. Personnel Qualifications
  - 7.1 Resumes
  - 7.2 Education and Experience For measurement of Site Samples
8. Facility Description and Capital Equipment
  - 8.1 Instrumentation
  - 8.2 Backup Alternatives
9. Preventive Maintenance
10. Corrective Action
11. Lab Evaluation and Audits
  - 11.1 Management System Reviews
  - 11.2 Technical System Audits
  - 11.3 Performance Evaluation (currently covered)
  - 11.4 Data Quality Audits
12. Quality Assurance Reports To Management
13. Lab Documentation and Forms
14. Sub-Contracting of Services
15. Standard Operation Procedures
  - 15.1 SOP Format
    - 15.1.1 Title Page
    - 15.1.2 Scope and Application
    - 15.1.3 Definitions
    - 15.1.4 Procedures
    - 15.1.5 QC Limits
    - 15.1.6 Corrective Action Procedures  
including Secondary Review of  
Information Being Generated
    - 15.1.7 Documentation Description and Example  
Forms
    - 15.1.8 Miscellaneous Notes and Precautions
    - 15.1.9 References



15.2 Required SOPs

- 15.2.1 Evidentiary SOP
- 15.2.2 Sample Receipt and Storage
- 15.2.3 Sample Preparation
- 15.2.4 Glassware Cleaning
- 15.2.5 Calibration
- 15.2.6 Analytical procedures
- 15.2.7 Maintenance activities
- 15.2.8 Analytical Standards
- 15.2.9 Data Reduction procedures
- 15.2.10 Documentation policy/procedures
- 15.2.11 Data Validation/self inspection procedures
- 15.2.12 Data Management and handling
- 15.2.13 Quality Assurance and Quality Control

21. Page 17, Table 5-2. Specify in the Closure Plan and SAP how data quality will be assessed. Specify the use of the following EPA data validation guidelines to assess data quality:

USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (PB-94-963502)

USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (PB-94-963501)

Specify in the Closure Plan who will validate the data submitted to EPA.

22. Page 18, Section 6.0. Specify that copies of validated lab data will be submitted to EPA upon request.
23. Page 18, Section 7.0, Post Closure Plan/Contingent Closure Plan. Although the title indicates otherwise, the text in this section does not include any mention of contingent closure plans. There should be consistency throughout the Closure Plan as to what circumstances may require the submittal by NWES of post-closure plans or contingent post-closure plans pursuant to the applicable regulations.
24. The Closure Plan states that the water rinsates of the units will be analyzed for constituents representative of the type of waste handled by the unit. This analysis requires that all Appendix VIII constituents be measured, because a broad spectrum of wastes have been handled by the units in the past.

25. SAP Section 2.2, Page 2-1. Rinsing a metal surface with reagent water does not indicate that metal surfaces are clean of organics, especially oily waste organics as were handled in these units. Metal surfaces should be sampled for Appendix VIII constituents using a PCB wipe sampling method.
26. SAP Section 2.3, Page 2-1. The data quality of analytical results must be determined through the data validation process, as specified above.
27. Table A-1, Page 2-2. The number of samples listed in Table A-1 is inadequate to determine unit closure. Additional soil samples must be taken. See comment #10, above.
28. As above, methods such as Methods 8270A and 8080A should be used to analyze for Appendix VIII constituents. TCLP Method 1311 should be deleted from the table.
29. The Closure Plan and SAP have not defined the Data Quality Objectives (DQOs) to evaluate the precision of the results. The Closure Plan and SAP have not proposed the collection of duplicate samples or MS/MSD samples. DQOs for each type of sample and method of analysis should be added to Table A-1. Also, include in the table all PARCC requirements for the Closure Plan, such as the measurement of precision and accuracy.
30. SAP Section 3.2, Page 3-1. The SAP does not define which or how composite soil samples will be collected. Additionally, compositing of samples will not accurately determine contamination levels for each unit.
31. Table A-2, Page 4-2. This table is incomplete (see comment #18 above).
32. Table A-3, Page 4-3. The SAP does not have preservation and holding time requirements for rinsate samples or water samples. Also needed are preservation and holding times for Appendix VIII constituents.





STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

November 23, 1994

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**RCRA Compliance Section**

Mr. Kevin Schanilec  
EPA-Region X  
1200 Sixth Avenue  
Seattle, WA 98101

Dear Mr. Schanilec:

Re: Closure Plan, Closure of Freuhauf Pit, Large Pit, Sump  
No. 2 and 4, Northwest EnviroService Inc., July 1994

EPA has completed an extensive review of this closure plan. The following Ecology comments on the above closure plan will not attempt to duplicate EPA's comments, but only add comments where Ecology noticed additional deficiencies.

General Comments

1. If EPA's signature authority is to be Betty Wiese, then the signature authority from Ecology would be Julie Sellick; title, Hazardous Waste and Toxics Reduction Section Head.
2. Because EPA and NWES have been negotiating these closure activities through orders, Ecology is at a disadvantage in knowing all the issues involved in any settlement discussions. Therefore, it is unclear in the closure plan and in EPA's comments which unit will be handled as the surface impoundment. In the Complaint and Compliance Order (RCRA Docket No.:1092-08-07-3008(a)), two surface impoundments (Freuhauf Pit and Large Pit) and two tanks (Sumps #2 and #4) were identified. In the revised closure plan, specific units will need to be clearly identified as surface impoundment or tanks.

Ecology also assumes that any groundwater contamination will be handled through the RCRA corrective action process.

4. Include detailed descriptions and figures for all units.
5. Cost estimates for the closure work should be provided in the revised plan.



Specific Comments

1. Page 1. Section 1.1. Closure Activities: The plan should specify that the backfill material will be clean material.
2. Page 3. Section 1.1. Closure Activities: Is there to be a specific ground water monitoring network around each unit? How easy will it be to distinguish other potential sources of contamination? If during any ground water investigation, significant ground water contamination is found, interim measures should be instigated prior to CMS and CMI steps of the corrective action process.
3. Page 3. Section 1.1. Closure Activities: The plan should include the name and phone number of a NWES contact person. Also, the requirements for notification are 45 days for tanks and 60 days for surface impoundments.
4. Page 4. Section 2.1. General: The plan should specify how Sumps 2 and 4 will be put back into service after closure. If the intent is to be used for hazardous waste, this will require a final hazardous waste permit before use. If for non-hazardous waste, use after closure can happen immediately.
5. Page 6. Section 2.2. Oil Water Separator Tank/Fruehauf Pit: In the last sentence there is a typographical error: "solid-phase waste steams" should be changed to streams. Also, what type of landfill, a solid waste landfill or a hazardous waste landfill, will the sludge be sent to? Will any treatment be necessary?
6. Page 6. Section 2.3. Primary Sedimentation Tank(PST)/Large Pit: What type of landfill will the solids from the PST be sent to? See comment 5 above.
7. Page 6. Section 2.4. Sump No. 2: The physical description for the sump is not included, only the location.
8. Page 10. Section 4.2. Specific Performance Standard: Rinsate samples are not acceptable for determining clean closure for tanks or surface impoundments, but the information may be necessary for discharges to the sewer system (METRO).



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9. Page 11. Section 4.2. Specific Performance Standard: The last bullet item should specify a concrete core.
10. Page 11. Section 4.2. Specific Performance Standards: When using MTCA methods A or B, all sections of MTCA pertaining to those methods will need to be evaluated. This will be important if multi-constituents are involved.
11. Page 11. Table 4-1: The heading should specify Concrete/Soil.
12. Page 11. Table 4-1 and Footnote: It should be noted that the data for Vinyl Chloride was collected in April 1992 and is not acceptable for setting a standard if the unit continued to operate after that sample date.
13. Page 12. Section 5.3. Decontamination of Units: In step number one, it should be acknowledged that all cracks or openings will be thoroughly mapped before sealing. These will potentially be areas for soil sampling locations.
14. Page 13. Figure 5-1: No figure enclosed.
15. Page 14. Section 5.3. Decontamination of Units: Step 3 should just specify 40 CFR 268.45. The specific reference to (d)(5) may not be appropriate depending on the actual procedures used.
16. Page 15. Section 5.4. Performance Standard Verification: The soil samples should initially be collected at the concrete/soil interface. If contamination is discovered, samples at various depth will be required.
17. Page 15. Analytical Methods Table: Typographical error on the line for Sump No. 2, it should read SW846 not SW840. For EPA, explain why TCLP extraction method 1311 is not acceptable.
18. Page 16. Section 5.7. Lining of Sumps: If Sumps No. 2 and 4 are to be placed back into service accepting hazardous waste, they will need to meet the tank standards.

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19. Page 18. Section 6.0. Closure Certification: The facility has 60 days, not 14 days, to submit a signed certification. The certification is to be signed by the owner or operator and an independent registered professional engineer. The certification is to be sent to the regulatory agencies by registered mail.

If you have any comments or questions on the above review, please call me at 649-7026.

Sincerely,



Sally Safioles  
Hazardous Waste Hydrogeologist  
Hazardous Waste and Toxics Reduction